

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT NO. 3540

UNION PACIFIC RAILROAD COMPANY

IN RE ACCIDENT

AT SPENCER, IDAHO, ON

SEPTEMBER 19, 1953

SUMMARY

Date: September 19, 1953
Railroad: Union Pacific
Location: Spencer, Idaho
Kind of accident: Collision
Equipment involved: Engine with cars : Motor-truck
Engine number: 3134 :
Consist: 6 cars :
Estimated speeds: 3 m. p. h. : Undetermined
Operation: Timetable, train orders, and automatic block-signal system
Track: Single; 13°3' curve; vertical curve
Highway: 2° curve; crosses track at angle of 58°30'; 1.0 percent ascending grade westward
Weather: Clear, dark
Time: 8 p. m.
Casualties: 1 injured
Cause: Motor-truck occupying rail-highway grade crossing immediately in front of approaching engine with cars

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3540

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

UNION PACIFIC RAILROAD COMPANY

December 1, 1953.

Accident at Spencer, Idaho, on September 19, 1953, caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching engine with cars.

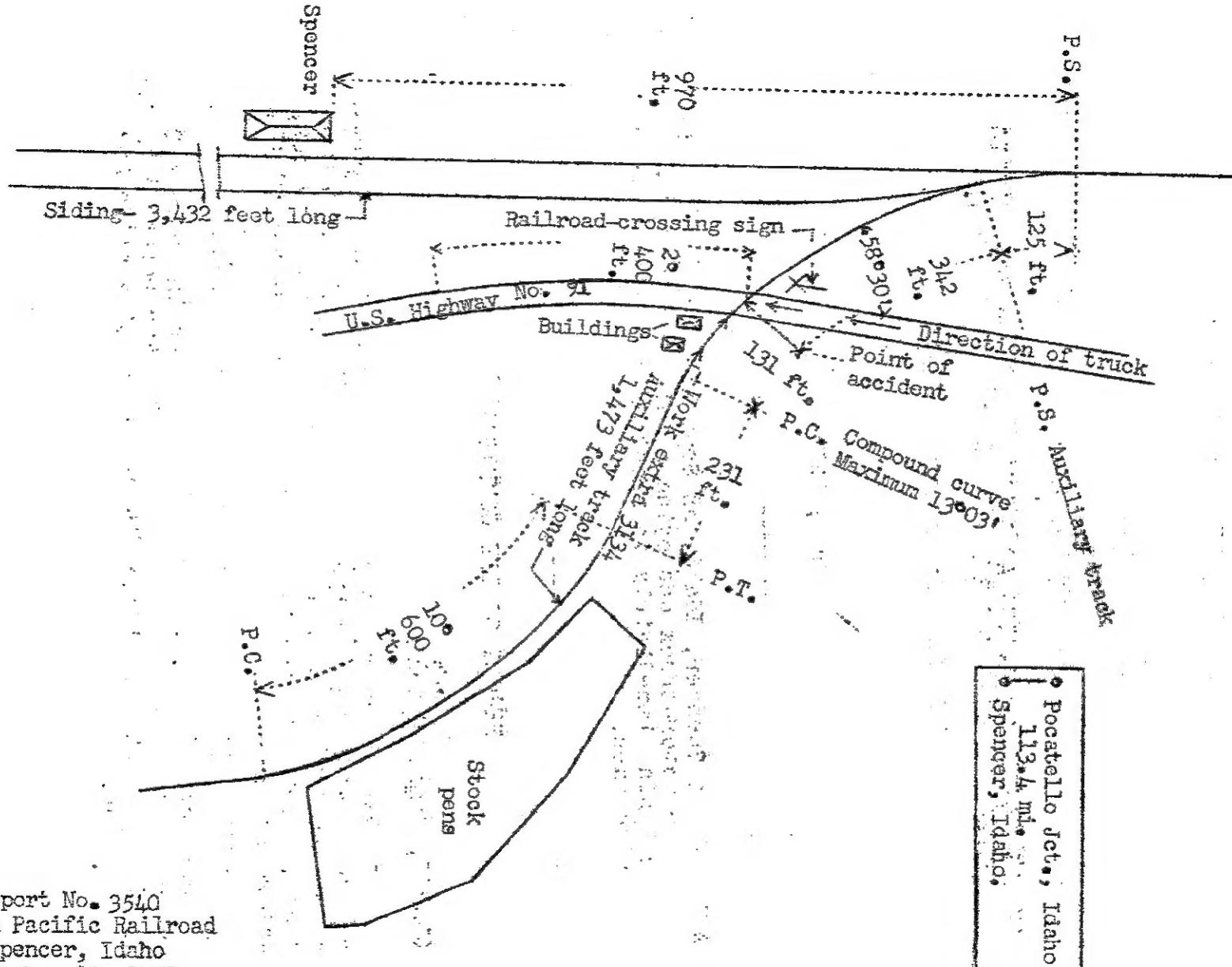
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REPORT OF THE COMMISSION

CLARKE, Commissioner:

On September 19, 1953, there was a collision between an engine with cars on the Union Pacific Railroad and a motor-truck at a rail-highway grade crossing at Spencer, Idaho, which resulted in the injury of the driver of the motor-truck.

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Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Clarke for consideration and disposition.



Report No. 3540
Union Pacific Railroad
Spencer, Idaho
September 19, 1953

To Pocatello Jct., Idaho →

Location of Accident and Method of Operation

This accident occurred on that part of the Idaho Division extending between Spencer and Pocatello Jct., Idaho, 113.4 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. At Spencer, 113.4 miles west of Pocatello Jct., a siding 3,432 feet in length parallels the main track on the south. The railroad at this point extends approximately north and south. Timetable directions on the railroad are east and west, and are used in this report. The east siding-switch at Spencer is located 970 feet east of the station. An auxiliary track 1,473 feet in length extends in a generally southwesterly direction from the siding to stock pens and loading chutes located south of U. S. Highway No. 91. The switch of the auxiliary track is located in the siding at a point 125 feet west of the east siding-switch. It is trailing-point for east-bound movements. The accident occurred on the auxiliary track at a point 342 feet west of the switch, where this track is crossed at grade by U. S. Highway No. 91. The main track is tangent in the vicinity of the east siding-switch. From the west on the auxiliary track there are, in succession, a 10° curve to the left 600 feet in length, a tangent 231 feet and a compound curve to the right, having a maximum curvature of $13^{\circ}03'$, 131 feet to the point of accident and 342 feet eastward to the siding. The grade for east-bound movements on the auxiliary track is, successively, 2.0 percent descending from the end of the track to the crossing, a vertical curve over the crossing at the point where the accident occurred and then 1.0 percent ascending 300 feet to the siding.

U. S. Highway No. 91 intersects the auxiliary track at an angle of $58^{\circ}30'$. This highway is 20 feet wide and is surfaced with bituminous material. The crossing is surfaced with bituminous material to the level of the tops of the rails. The highway is tangent throughout a distance of 915 feet immediately east of the crossing and then there is a 2° curve to the left which extends westward from that point a distance of approximately 400 feet. The grade for west-bound vehicles approaching the crossing is, successively, 3.50 percent descending a distance of 700 feet, 1.0 percent ascending 200 feet and practically level over the crossing.

A standard cross-buck railroad-crossing sign is located to the right of the direction of west-bound highway traffic, 22 feet north of the center-line of the highway and 13 feet 6 inches south of the center-line of the auxiliary track. It bears the words "RAILROAD CROSSING" in black on a white background.

This carrier's operating rules read in part as follows:

DEFINITIONS

Restricted Speed.—Proceed prepared to stop short of train, obstruction, or switch not properly lined, and be on lookout for broken rail, or anything that may affect movement of train.

ENGINE WHISTLE SIGNALS

14.

Note.—* * *

The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds. * * *

In sounding Signal 14 (1) for public crossings, the first of the long sounds must be started at such a point that the signal will be completed by ending the last sound on the crossing * * * The duration of the complete signal must be not less than ten seconds.

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Sound	Indication
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* * *

(1) — — o —	Approaching public crossings at grade * * *
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30. Engine bell must be rung when an engine is about to move and while approaching and passing public crossings at grade * * *

105(A.) Trains or engines using any track other than a main track, must move at restricted speed.

This Commission's motor carrier safety regulations read in part as follows:

192.10 Railroad grade crossings; stopping required. (a) Every motor vehicle transporting any of the following:

* * *

(2) Explosives--Class A or Class B;

* * *

* * * shall, upon approaching any railroad grade crossing, make a full stop not more than 50 feet, nor less than 15 feet from the nearest rail of such railroad grade crossing, and shall not proceed until due caution has been taken to ascertain that the course is clear * * *

* * *

195.4 Maximum driving time. * * * no carrier subject to Parts 190-197 * * * shall permit or require a driver employed or used by it to drive or operate for more than 10 hours in the aggregate in any period of 24 hours, unless such driver be off duty for 8 consecutive hours during or immediately following the 10 hours aggregate driving and within said period of 24 consecutive hours * * *

195.5 Maximum hours of service of carrier-driver. No carrier subject to Parts 190-197 * * * if himself a driver shall remain on duty or drive for longer periods than those prescribed in * * * 195.4.

195.8 Driver's daily log. (a) Every motor carrier shall require that a driver's daily log shall be made in duplicate for every driver employed or used by it and every driver who operates a motor vehicle shall make such a log * * *

* * *

A statute of the Idaho motor vehicle laws requires that the driver of any vehicle carrying explosive substances as a cargo or part of a cargo, before crossing at grade any track or tracks of a railroad, shall stop such vehicle within 50 feet but not less than 10 feet from the nearest rail of such railroad, and while so stopped shall listen and look in both directions along such track for any approaching train, and for signals indicating the approach of a train and shall not proceed until he can do so safely.

Description of Accident

The crew of Work Extra 3134 received instructions to perform switching service for stock loading operations at Spencer and to assemble the loaded cars for eastward movement in their train. Engine 3134, a 4-6-2 type oil-burning steam locomotive, was headed east. A few minutes before the accident occurred engine 3134, coupled to the east end of a cut of cars which were being loaded, stopped on the auxiliary track, with the front end of the engine about 40 feet west of the crossing of U. S. Highway No. 91 and the seventh car spotted for loading at a stock chute. The engine and the first six cars were then moved eastward toward the main track, and while moving over the crossing at an estimated speed of 3 miles per hour the engine collided with a motor-truck.

The vehicle involved was a motor-truck owned by the W.P. LaVelle Powder & Equipment Company of Butte, Mont. The driver, who was the sole occupant, held Montana driver's license No. L930614. The motor-truck was a 1952 Ford stake body model F-8. It was provided with an enclosed cab. Dual tires were provided on the tandem axles at the rear. It bore the following licenses: Nevada PX-1594, Montana L-T-1500, and Idaho TK-4293. At the time of the accident the cargo consisted of 100 cases of 1-1/2 X 12 Gelodyn #1 and 300 cases of 1-1/8 X 8 Gelodyn #3 high explosives, 2 cases of blasting caps, 90,000 feet of safety fuse and 12 1-quart cans of sealing compound. The weight of the lading was 23,200 pounds. This cargo was loaded at the Atlas Powder Plant at Nitro, Calif., in the San Francisco Bay area, between 1:30 p. m. and 2:50 p. m., September 18, 1953, and was destined to Butte, Mont. The motor-truck departed from the powder plant at 2:50 p. m. This vehicle approached the crossing at Spencer from the east, entered the crossing without stopping and while moving at an undetermined speed it was struck by the engine of Work Extra 3134.

The engine stopped with the front end about 22 feet east of the crossing. The headlight was broken and the front end of the engine was slightly damaged as a result of the collision. The motor-truck was struck on the left side immediately in front of the rear wheels. It stopped with the front end in a depression on the north side of the auxiliary track, in the northwest angle of the intersection and at a point about 11 feet north of the highway. The rear end was on the track in front of the engine. The rear of the cab was crushed inward and the motor-truck was badly damaged. The cargo was displaced. Cases of high explosives and blasting caps were scattered on the ground in the vicinity of the point of collision.

The driver of the motor-truck was injured.

The weather was clear at the time of the accident, which occurred about 8 p. m.

During the 24-hour period beginning at 12:01 a. m., October 17, 1953, 535 automobiles, 208 motor-trucks and 6 buses passed over the crossing.

Discussion

A few minutes before the accident occurred, engine 3134, coupled to the east end of a cut of cars, stopped on the auxiliary track at Spencer with the front end of the engine about 40 feet south of the crossing and the seventh car spotted at a loading chute. The stock pens were illuminated by electricity for night loading of stock. The air hose between the engine and all units of the cut of cars were coupled and the air-brake system was charged. The fireman was operating the engine while the engineer ate at a nearby restaurant. The conductor boarded the engine and sat in the fireman's position in the left side of the cab. He instructed the fireman that six cars were to be moved to the main track as soon as a signal was received from the rear, and informed him that there were no vehicles approaching from the west on the highway. Immediately afterward proceed signals were given with a white light from the vicinity of the sixth car and the fireman acknowledged them by sounding two short blasts on the engine whistle.

Before the eastward movement over the crossing was started the headlight of the engine was lighted brightly and the engine bell was ringing. The fireman began sounding the crossing whistle signal immediately before the movement began and prolonged it until the engine had entered

the crossing. As the movement proceeded eastward the fireman and the conductor were maintaining a lookout ahead from the engine cab. The front brakeman and the flagman were on the rear car. The members of the crew engaged in the movement said that their speed over the crossing was about 2 or 3 miles per hour. There were fire flashes from the oil-burning apparatus as the engine moved eastward. The fireman said that as the engine moved over the crossing he observed the lights of an approaching motor-truck as it came over the crest of a hill approximately 900 feet east of the crossing. He estimated that the vehicle was moving at a speed of about 50 miles per hour, and when the speed was not reduced he became concerned. When he saw the motor-truck veer toward the north side of the road he called a warning and made an emergency application of the brakes. He said that the front end of the engine was at the east side of the crossing and the truck had veered to the north shoulder of the highway when the collision occurred. He thought the engine moved eastward about 10 feet after the brakes were applied. The front brakeman said that he observed the motor-truck approaching as the engine proceeded over the crossing. When he observed that the speed of the motor-truck was not being reduced as it approached the crossing he alighted from the front end of the rear car and called a warning. The flagman said that he observed the approaching motor-truck and it appeared to him that the brakes of the vehicle were not applied until it was closely approaching the crossing. He estimated that the motor-truck was moving at a speed of 40 or 45 miles per hour when it turned toward the north side of the road and attempted to pass around the front end of the engine immediately before the collision occurred.

The driver of the motor-truck said that as his vehicle was approaching the point where the accident occurred the speed was about 30 miles per hour. The headlights and clearance lights of the motor-truck were lighted. He said that he dimmed his headlights for a passing automobile and observed that there were several automobiles standing in front of a restaurant located immediately west of the crossing. An automobile which preceded his motor-truck over the crossing turned left and stopped in the vicinity of this building. The motor-truck was not stopped before it reached the crossing. The driver of the motor-truck said that he reduced speed to about 20 miles per hour and shifted to a lower gear when his motor-truck was about 25 feet east of the crossing. When he observed lights moving toward the crossing he applied his brakes. He said that he had thought the lights were in a building adjacent to the crossing until he saw the engine, and he immediately sounded his horn and turned his motor-truck toward the north shoulder of the

highway in an effort to avoid a collision. He estimated that the engine was moving at a speed of from 3 to 5 miles per hour. He said that his motor-truck was pushed eastward along the track as a result of the collision. The driver of the motor-truck was injured in the accident. Because of damage to the cab of the vehicle he could not be removed until about 20 minutes after the accident occurred.

A witness to the accident said that he passed the motor-truck involved in his automobile about 1 mile east of the point where the accident occurred. He drove his automobile over the crossing and turned left off the highway and stopped his vehicle in front of the restaurant building. He said that he had observed that the headlight of the engine was lighted, and heard the engine whistle sounded and the engine bell ringing. The engine moved eastward immediately after he had stopped his vehicle, and his attention was attracted to the crossing by the sound of tires screeching on the highway. He said that the collision occurred when the motor-truck attempted to pass around the front end of the engine. Officers of the Idaho State Police measured skid marks which were found on the highway east of the crossing after the accident occurred. These marks extended from a point 129 feet 6 inches east of the crossing in the lane of west-bound traffic and turned northward to the right shoulder of the highway immediately east of the crossing.

The investigation disclosed that the motor-truck involved had departed from the Atlas Powder Plant at Nitro, Calif., about 2:50 p. m., Pacific Time, Sept. 18, 1953. The accident occurred at Spencer, Idaho, about 8 p. m., Mountain Time, Sept. 19, 1953, 28 hours 10 minutes later, in elapsed time. The distance between Nitro, Calif., and the point of accident is approximately 1,030 miles. The maximum continuous driving time available to the driver of a motor-truck subject to the regulations of this Commission, except in case of emergency or adverse driving conditions, in a period of 28 hours 10 minutes would be two 10-hour periods separated by a minimum period of 8 consecutive hours off duty. Under these circumstances, if the required rest period had been taken, the driver of the motor-truck involved would have had to maintain an average speed in excess of 50 miles per hour throughout the distance between Nitro, Calif., and the point of accident. At the investigation held in Butte, Mont., Oct. 31, 1953, the driver of the motor-truck declined to furnish information relative to his route between Nitro, Calif., and Spencer, Idaho, or as to his hours of service or rest periods en route.

The driver of the motor-truck was familiar with the crossing where the accident occurred. As a vehicle approaches the crossing from the east, the driver has an unobstructed view of an engine at any point between the stock loading chutes and the crossing throughout a distance of more than 915 feet. A standard cross-buck railroad-crossing sign for west-bound traffic is located 22 feet east of the crossing. The motor-vehicle laws of the state of Idaho and the safety regulations of this Commission require that motor-trucks with high explosive lading must be stopped before entering a railroad grade crossing.

Cause

This accident was caused by a motor-truck occupying a rail-highway grade crossing immediately in front of an approaching engine with cars.

Dated at Washington, D. C., this first day of December, 1953.

By the Commission, Commissioner Clarke.

(SEAL)

GEORGE W. LAIRD,

Secretary.